



ABSTRACT OF THE DISCLOSURE

There is disclosed a display device using a color wheel having a color filter Cw, in addition to normal color filters corresponding to the three primary colors. The filter Cw has almost flat spectral transmission characteristics. Brightness information included in a color image signal is quantized with (n + m) bits. Information corresponding to the lower-order n bits is displayed by light transmitted through the filter Cw. Information corresponding to the upper-order n bits is displayed by light transmitted through the normal color filters. Only brightness information to which the human eye is visually sensitive is reproduced by the filter Cw having a lower transmissivity. This can eliminate a lack of the number of gray levels due to a constraint on the minimum switching speed of a light valve. Furthermore, the brightness little deteriorates.